

WHAT IS CLAIMED IS:

1. A unitary attic rafter vent and insulation dam assembly, the assembly comprising a generally rectangular, flexible polyolefin foam body, the body having a first major planar surface, a second major surface spaced apart from the first major planar surface, a first end and a second end, the ends being generally parallel to, but spaced apart from, each other and connecting the first and second major surfaces, and a thickness dimension established by spacing between the major surfaces, the thickness being sufficient to accommodate at least one of (a) at least two grooves in the second surface that longitudinally traverse the second surface and provide fluid communication between the first and second ends or (b) at least one conduit disposed between the major surfaces and in fluid communication with both the first and second ends, the body being sufficiently flexible to withstand bending at a 90° angle without cracking or rupturing either major surface or sealing off fluid communication via the grooves, conduits or both and having a modulus sufficient to allow the assembly to rebound by at least 20° when bent at said 90° angle.
2. The assembly of Claim 1, wherein the polyolefin foam body is an extruded polyolefin foam, an extrusion molded polyolefin foam or a molded polyolefin bead foam.
3. The assembly of Claim 1 or Claim 2, wherein the polyolefin is selected from the group consisting of an olefin homopolymer, an olefin copolymer, a blend of an olefin homopolymer and an olefin copolymer.
4. The assembly of Claim 3, further comprising at least one of a polystyrene resin or a styrene copolymer resin.
5. The assembly of Claim 3, wherein the thickness is at least one inch (2.5 centimeters).
6. The assembly of Claim 3, wherein the thickness is at least 1.5 inches (3.8 centimeters).
7. The assembly of Claim 3, wherein the thickness is at least 2 inches (5.1 centimeters).

8. The assembly of Claim 3, wherein the thickness is less than or equal to a rafter depth, said depth being measured along a perpendicular line drawn on a rafter directly away from a juncture of the rafter and a roof deck.

5 9. The assembly of Claim 3, wherein the polyolefin foam body rebounds by at least 30° when bent at said 90° angle.

10. The assembly of Claim 3, wherein the polyolefin foam body rebounds by at least 40° when bent at said 90° angle.

11. The assembly of Claim 3, wherein the polyolefin foam body rebounds by at least 45° when bent at said 90° angle.

10 12. The assembly of Claim 3, wherein the second major surface has defined therein a plurality of grooves.

13. The assembly of Claim 3, wherein the second major surface is an extruded surface, a molded surface or a machined surface.

15 14. The assembly of Claim 3 or Claim 13, further comprising a film facer, the film facer being operatively attached to at least one of the major surfaces of the polyolefin foam body.

20 15. A method of establishing and maintaining air flow between soffit vents and attic vents in a building construction with a pitched roof, the building construction comprising an exterior vertical wall, a ceiling supported by the wall and placed against ceiling joists or ceiling joist segments of rafter trusses, a roof supported by the wall and including a plurality of spaced rafters or rafter trusses that are secured to an upper surface of the wall and a roof deck supported by the rafters, or rafter segments of trusses, the soffit vents being disposed outwardly of the exterior wall and the attic vents being disposed inwardly of the exterior wall, the method comprising (a) orienting the unitary attic rafter
25 vent and insulation dam assembly of Claim 1 such that the first major planar surface faces away from the roof deck, (b) inserting one end of the assembly into a space formed by two adjacent rafters, or rafter segments of adjacent trusses, (c) bending the assembly proximate to the other end such that at least a portion of the major planar surface comes into operative

contact with a portion of the exterior wall proximate to a juncture formed by the rafters, or rafter joist segments of trusses, and the upper surface of the wall, and (d) securing the major planar surface portion to the exterior wall portion.

16. A method of establishing and maintaining air flow between soffit
5 vents and attic vents in a building construction with a pitched roof, the building
construction comprising an exterior vertical wall, a ceiling supported by the wall and placed
against ceiling joists or ceiling joist segments of rafter trusses, a roof supported by the wall
and including a plurality of spaced rafters or rafter trusses that are secured to an upper
surface of the wall and a roof deck supported by the rafters or rafter segments of the trusses,
10 the soffit vents being disposed outwardly of the exterior wall and the attic vents being
disposed inwardly of the exterior wall, the method comprising (a) orienting the unitary attic
rafter vent and insulation dam assembly of Claim 1 such that the first major planar surface
faces away from the roof deck, (b) placing the first end of said assembly against the ceiling
at a distance from the wall, (c) applying a bending force to said first end sufficient to cause
15 at least a portion of the first major surface of the assembly proximate to said first end to
form an acute angle with that portion of the first major surface distant from said first end,
and (d) inserting the second end of the assembly into a space formed by two adjacent rafters
or rafter segments of trusses.

17. The method of Claim 15 or Claim 16, wherein the assembly has a
20 second major surface into which are defined a plurality of grooves and the end inserted into
the space between adjacent rafter segments is proximate to the roof deck such that at least a
portion of a plurality of the grooves, when taken in combination with the roof deck, forms
an air flow channel.

18. The method of Claim 15 or Claim 16, wherein the at least a portion of
25 the assembly proximate to the end of the assembly that is inserted into the space formed by
two adjacent rafters or rafter segments is secured to secured to said rafters or rafter
segments.

19. The method of Claim 18, wherein the assembly portion is secured to
the rafters by fasteners, adhesives or both.

20. The method of Claim 15 or Claim 16, wherein at least a portion of the first surface of the assembly is supported by a transverse brace that is attached to undersides of adjacent rafters or rafter truss segments.

21. The method of Claim 16, wherein the first end of the assembly has a beveled profile, at least a portion of which is in physical contact with the ceiling.

22. The method of Claim 21, wherein the beveled profile is a planar surface that intersects the first major surface of said assembly at an acute angle and the second major surface of said assembly at an obtuse angle.

23. The method of Claim 16, Claim 21 or Claim 22, wherein the first end of the assembly is secured to the ceiling and/or the second end of the assembly is secured to adjacent rafters or rafter truss segments.

24. The method of Claim 16, Claim 21 or Claim 22, wherein the first surface has defined therein at least one transverse groove, crease, cut, perforation or indentation in the first surface proximate to the first end and distant from the other end, nominally the second end.

25. The method of Claim 24, wherein a layer of polymer film is applied to at least that portion of the second major surface opposite the transverse groove in the first surface.

26. The method of Claim 24, wherein a plurality of strips of reinforcing tape are applied to at least that portion of the second major surface opposite the transverse groove in the first surface.